

No 4 Samon

A Thesis

on

Papered March 27th
1826

Puerperal Fever

By

Hugh Wilson

Of Virginia

1825

1
Cape of Good Hope
No 6

St John

St John

St John

St John

St John

1822

Puerperal Fever

In selecting Puerperal Fever as the subject of my thesis, it was not with the expectation of advancing any thing new on a subject, which has already drawn forth the most able pens; but with the view of investigating the subject, and thereby arriving at some definite conclusion respecting its nature and treatment. It is a subject which has elicited much of the talents and observation of medical men of the greatest celebrity within the last fifty years, and notwithstanding the rapid advances to improvement, and the liberal spirit of inquiry and observation which has pervaded every department of our profession, there still exists great discrepancy of opinion.

respecting its nature and treatment, so much so indeed, as to disquiet the mind of the student, and give rise to much doubt and indecision on points of the greatest importance: and moreover, to cause the young practitioner to hesitate in the employment of those remedies, by which he knows he can successfully combat similar symptoms in other diseases.

But an era has arrived in the history of medicine, when, the vague conjectures of the most celebrated individuals, must give place to the inferences of unbiased observation; nor have these improvements been brought about by the labours of any one man, but by a number of men, who, regardless of system, have assiduously investigated particular diseases, and through whose instrumentality, experience and reason have gained a signal triumph over the dogmas of the schools, and the prescriptions of speculative authorities.

Puerperal fever is a disease peculiar to women after delivery, the pathognomonic symptoms of which, are, great soreness, pain, and tension of the abdomen, accompanied by fever, uncommon quickness of pulse, tensive pain over the forehead, peculiar evanescence of the eyes, depression of strength, anxiety, suppression or diminution of the milk and lochia, a flaccid state of the mammae, and an unnatural condition of the excrements.

Many of the causes of fever, especially those connected with certain states of the atmosphere, are involved in as much obscurity as often to leave room for considerable doubt respecting their nature; this is particularly the case in the disease before us, and various opinions are entertained with regard, both to its nature and the causes producing it. Some have considered the disease purely inflammatory, while others have supposed it to be a modification of typhus. Others again have adopted

a middle course and believed it to be inflammatory in its commencement, but having in its progress a rapid tendency to the typhoid type.

Dr. Armstrong says, that the disease is of an active inflammatory nature, and pathologically considered, the puerperal peritonitis and the low child bed fever are modifications of the same disease, yet, he has avoided fully identifying them; he further observes, that if there be any difference between them with regard to their inflammatory disposition, that difference must consist in degree, the vestiges of inflammation being more strikingly evident in the low child bed fever, than in the puerperal peritonitis. Dr. Clark and a number of other writers, have generally considered the epidemic form of the disease to be of a typhoid kind, and on that account more fatal; he has also especially distinguished the loco fever of child bed, connected with affections of the abdomen, which is sometimes epidemic, from the

inflammatory diseases of the uterus, ovaria, and peritonaeum. Dr. Thomas is of the opinion, that it generally has a strong tendency to the typhoid type, he also thinks the disease contagious, and that the fever which accompanies it, is the primary affection, while the appearances of the abdomen are symptomatic. Dr. Hulse says, that it is a disease of a nature peculiar to itself, that it is for the most part as simple and regular in its appearance as any disease incident to the human body. Puerperal fever, and the more common forms of uterine and peritoneal inflammation, are so closely connected, and their diagnostic symptoms so indistinctly marked, that the one seems to pass imperceptibly into the other; so that the real cause of the disease is somewhat obscure and undetermined.

Some have assigned an undue secretion of milk as the cause of this disease. Others have supposed it to arise from a redundant, or vitiated state of the bile, the secretion of which appears to be much interrupted during the time of gestation. Others

again have supposed it to depend on a stoppage of the lochia; but this appears to be only the effect and not the cause of the disease.

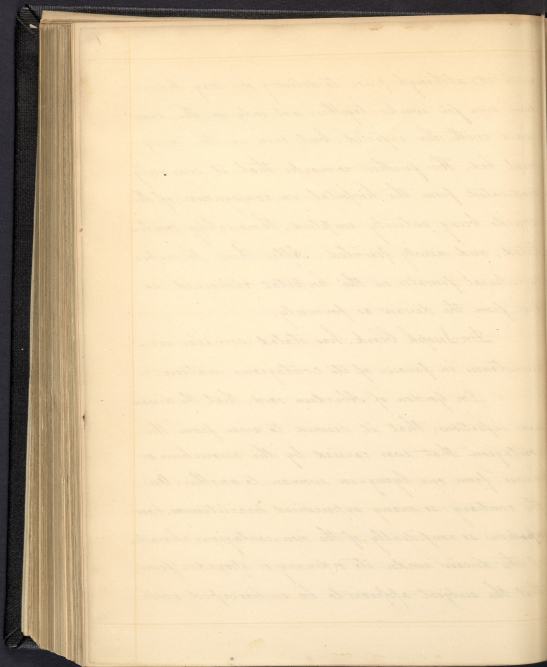
With regard to the infectious nature of the disease, a great contrariety of sentiment has indeed existed; and strong evidence has been advanced in favour of its being so.

The late Dr. Young, professor of midwifery at Edinburg, was of opinion* that the puerperal fever strictly so called, is, in every instance, the consequence of contagion: but he contends, that the contagious matter of the disease is capable only of producing its effects in consequence of a peculiar predisposition given by delivery and its consequences. In support of this doctrine he remarks, that for many years the disease was altogether unknown in the lying-in ward of the Royal Infirmary at Edinburg; but that after it was once introduced into the hospital, almost every woman was, in a short time after delivery, attacked

with it; although prior to delivery she may have lain even for weeks together, not only in the same ward with the infected, but even in the very next bed. He further remarks that it was only eradicated from the hospital in consequence of the wards being entirely emptied, thoroughly ventilated, and newly painted. After these procees, puerperal females in the hospital remained as free from the disease as formerly.

Dr. Joseph Clark, has stated similar circumstances in favour of its contagious nature.

Dr. Gordon of Aberdeen said, that the disease was infectious; that it seemed to arise from the contagion that was carried by the accoucheur or nurse, from one lying-in woman to another. On the contrary so many experienced practitioners, have spoken so confidently of the non-contagious character of the disease under its ordinary or sporadic form, that the subject appears to be embarrassed with



insuperable difficulties. It is, however, agreed on by all to be sometimes epidemic, and on that account more dangerous. After an attentive perusal of the few authors on the subject, which have come under my notice; it appears to me, that at its commencement, it is usually attended with inflammatory symptoms, and even with topical inflammation in the abdominal viscera, but more particularly the peritonaeum or membranes investing them; conjoined with the operation of some debilitating poison; probably in some cases more or less contagious.

Puerperal fever usually makes its appearance on the second or third day after delivery; but it has been known to take place a week afterwards. It is generally ushered in by slight shiverings or rigors, succeeded by great oppressions, nausea, retching, or vomiting; with pain in the head, flushings of the face, great anxiety and

cuttlefish. When the shiverings have abated, the skin becomes hot and dry; the pulse is very frequent, full and tense, beating from one hundred and twenty, to one hundred and forty strokes in a minute. The thirst becomes very urgent, and the tongue is dry and white, but in some few instances moist and clean about the edges, particularly where vomiting has taken place. At this time or very soon after, pain is felt in the abdomen, sometimes very acute and shooting into the back and loins, but in other cases more obtuse and confined to one particular part. As the disease advances, the whole abdomen becomes affected, is extremely tender, painful to the touch, tumid and tense; the fulness of the belly generally increases rapidly, and sometimes attains almost the size it was before delivery.

The respiration is more or less affected in every instance; and as the abdomen becomes distended,

the breathing is more labious. The countenance assumes the appearance of great anxiety and distress; the face is sometimes flushed, but generally the countenance is pale, with a peculiar wildness of the eyes, and a kind of livid stripe is to be observed under them. There is great dejection of mind, apparent lassitude, and prostration of strength.

If the secretion of milk has commenced, it suddenly stops on the accession of fever, but if the fever attacks previously, the milk does not appear; in every case the breasts become flaccid, the mother has no inclination to suckle her child, and seldom inquires after it.

When the disease is fully formed, the lochia either disappears, or is diminished in quantity, and what flows is of a dark colour and very offensive. The urine is scanty and high coloured, voided frequently and with pain; the bowels at first are usually constipated, but

in the progress of the disease a severe purging often ensues, particularly in those cases where the abdomen is much distended; and the discharges are very copious, dark, putrid, and offensive. A vomiting occasionally occurs at the very commencement of the disease, and is of a bilious appearance; but after the disease is somewhat advanced, this symptom becomes very urgent, and to so high a degree as to prevent the smallest quantity of medicine, or nourishment from being retained on the stomach; the matter thrown up is of a dark puracious appearance, and often of a disagreeable smell. After these symptoms have continued for one or two days, the disease often assumes a malignant and typhoid appearance, (this is the case particularly if the atmosphere predispose to diseases of that nature;) which is marked by great prostration of the vital and

muscular power. The lips, teeth, and gums, are covered with a dark brown fur; the tongue is brown or black, and parched, aphthae beset the whole internal surface of the mouth, and the breath is very offensive.

There is generally more or less affection of the mind; delirium often ensues and is occasionally of the low and muttering kind, from which the patient sometimes falls into a comatose state. The cheeks are alternately flushed and deadly pale, the eyes lose their lustre, the pain gradually and entirely leaves the abdomen, which becomes greatly distended, the stools are fetid, of a dark brown colour, and pass off involuntarily; and in some instances picaeulic spots appear on different parts of the body. Such is the course of puerperal fever in general; but under different circumstances the disease assumes different appearances, according to the constitution of the patient, the nature

and violence of the disease, and as it occurs sooner or later after delivery.

Puerperal fever is readily to be distinguished from after pains, by the entire intervals of ease, the absence of fever and abdominal tension in the latter, whereas in the former there is fever with uncommon frequency of pulse, swelling and soreness of the abdomen, which is aggravated by pressure, and the pain is without intermission.

The milk fever is known by a kind of throbbing pain and swelling of the breasts, and the pain being confined to the mammae; but in puerperal fever the pain commences in the abdomen, the breasts become more flaccid than natural, and there is more lassitude, depression of strength, nausea, and frequency of pulse in the commencement of the puerperal than of the milk fever.

Simple peritoneal inflammation is the

disease which bears the strongest resemblance to puerperal fever; but it never arises from contagion, or prevails epidemically. In puerperal fever, the abdominal pain is not the most prominent symptom: there is more despondency, debility, and headache, less heat of the skin, less thirst, and less flushing of the face. In peritonial inflammation, the abdomen is very tender to the touch, the pain and swelling increases rapidly from its commencement; and the fever is inflammatory throughout.

Puerperal fever is very rapid in its progress, often destroying the patient in forty-eight hours, or less, after its commencement. It seems agreed on by all accurate observers, that the danger is greater in proportion as the accession is sooner after delivery; when the disease comes on at a late period after labour, the prostration of strength is not so great, the pain and tumefaction

of the abdomen are less considerable, and the other symptoms are not so violent. When fresh discharges of lochia appear, and a gradual cessation of the pain and abdominal tension after copious discharges by stool, the pulse at the same time becoming slower and more regular, with a warm moisture diffused over the whole body, the respiration growing easy, deep, and slow, the tongue becoming clean and moist, and the secretion of milk taking place, are to be regarded as favourable symptoms. On the contrary, Dr. Armstrong observes, that, an agitated countenance, with a hurried unconnected manner of speaking, constant sighing, attended with a tossing of the arms, pain and oppression of the chest, visual deception, imaginary strange sounds and voices, muttering and stupor, are unfavourable symptoms. When the respiration becomes very short and oppressive, with increase of abdominal distension, sudden cessation of pain,

great frequency and irregularity of pulse, a cold clammy moisture diffused over the whole body, they denote certain and speedy dissolution.

It is supposed that one half of the women who die in child-bed, die of this disease; and according to computation, three fourths of those who have been attacked with it have fallen sacrifices to it.

The morbid appearances observed on dissection are usually confined to the abdomen; the first thing which presents itself, is a considerable quantity of whey like fluid, similar to that met with in simple peritonitis; and sometimes amounting to several quarts. Burns says, "that the swelling is neither proportioned to the inflammation nor effusion, nor in every instance dependent on them, but on the inflation of the bowels which results from the relaxation of their muscular fibres, which is so common in the puerperal state,

particularly in puerperal diseases. The fluid effused has a peculiar smell, different from any other fluid found in the human body, either in health or disease. In a few cases, a deposition of a caseous and serous nature has been discovered likewise in the head, breast, and external cellular membrane.

Sometimes the cavity of the abdomen has been found, filled with a matter of a purulent appearance. The peritonaeum is generally found inflamed and covered, as well as the surface of the intestines, with a layer of coagulated lymph; the inflammation does not appear to be confined always to one particular part; the peritonaeum, the omentum, the mesentery, the liver, the stomach, the intestines, the spleen and its appendages, the bladder, and even the pleura and lungs themselves, have all in their turn, suffered more or less from inflammation.

There is no subject perhaps, upon which

10
The first of these is the fact that the
the second is the fact that the
the third is the fact that the
the fourth is the fact that the
the fifth is the fact that the
the sixth is the fact that the
the seventh is the fact that the
the eighth is the fact that the
the ninth is the fact that the
the tenth is the fact that the
the eleventh is the fact that the
the twelfth is the fact that the
the thirteenth is the fact that the
the fourteenth is the fact that the
the fifteenth is the fact that the
the sixteenth is the fact that the
the seventeenth is the fact that the
the eighteenth is the fact that the
the nineteenth is the fact that the
the twentieth is the fact that the
the twenty-first is the fact that the
the twenty-second is the fact that the
the twenty-third is the fact that the
the twenty-fourth is the fact that the
the twenty-fifth is the fact that the
the twenty-sixth is the fact that the
the twenty-seventh is the fact that the
the twenty-eighth is the fact that the
the twenty-ninth is the fact that the
the thirtieth is the fact that the
the thirty-first is the fact that the
the thirty-second is the fact that the
the thirty-third is the fact that the
the thirty-fourth is the fact that the
the thirty-fifth is the fact that the
the thirty-sixth is the fact that the
the thirty-seventh is the fact that the
the thirty-eighth is the fact that the
the thirty-ninth is the fact that the
the fortieth is the fact that the
the forty-first is the fact that the
the forty-second is the fact that the
the forty-third is the fact that the
the forty-fourth is the fact that the
the forty-fifth is the fact that the
the forty-sixth is the fact that the
the forty-seventh is the fact that the
the forty-eighth is the fact that the
the forty-ninth is the fact that the
the fiftieth is the fact that the
the fifty-first is the fact that the
the fifty-second is the fact that the
the fifty-third is the fact that the
the fifty-fourth is the fact that the
the fifty-fifth is the fact that the
the fifty-sixth is the fact that the
the fifty-seventh is the fact that the
the fifty-eighth is the fact that the
the fifty-ninth is the fact that the
the sixtieth is the fact that the
the sixty-first is the fact that the
the sixty-second is the fact that the
the sixty-third is the fact that the
the sixty-fourth is the fact that the
the sixty-fifth is the fact that the
the sixty-sixth is the fact that the
the sixty-seventh is the fact that the
the sixty-eighth is the fact that the
the sixty-ninth is the fact that the
the seventieth is the fact that the
the seventy-first is the fact that the
the seventy-second is the fact that the
the seventy-third is the fact that the
the seventy-fourth is the fact that the
the seventy-fifth is the fact that the
the seventy-sixth is the fact that the
the seventy-seventh is the fact that the
the seventy-eighth is the fact that the
the seventy-ninth is the fact that the
the eightieth is the fact that the
the eighty-first is the fact that the
the eighty-second is the fact that the
the eighty-third is the fact that the
the eighty-fourth is the fact that the
the eighty-fifth is the fact that the
the eighty-sixth is the fact that the
the eighty-seventh is the fact that the
the eighty-eighth is the fact that the
the eighty-ninth is the fact that the
the ninetieth is the fact that the
the ninety-first is the fact that the
the ninety-second is the fact that the
the ninety-third is the fact that the
the ninety-fourth is the fact that the
the ninety-fifth is the fact that the
the ninety-sixth is the fact that the
the ninety-seventh is the fact that the
the ninety-eighth is the fact that the
the ninety-ninth is the fact that the
the hundredth is the fact that the

The medical world has differed more, than respecting the treatment of puerperal fever, and this diversity of opinion appears to have originated in part, from ^{the} different views entertained of the nature of the disease, and partly from the name of puerperal fever being given to different disorders. Most writers have distinguished two stages of the disease: the first, or stage of excitement; and the second, or stage of debility.

The first stage is evidently inflammatory, and calls for depletory measures, venisection and purging are the remedies upon which we are principally to depend, and those remedies should be promptly employed, for, in severe cases, if the first twelve or twenty four hours from its marked appearance be lost in doubt and hesitation, no human efforts generally speaking, can afterwards atone for the error.

It is of much importance in the treatment

of this disease, to distinguish between apparent and real debility; for in the former case, what appears to be a state of debility can only be removed by depletion sufficient to take off the load, by which the strength is suppressed; but, in the latter case, the period for depletion, at least by the lancet, is past, and the debilitated powers of the system must be supported by invigorating measures. Dr. Armstrong says, that the abdominal inflammation is greatest in those cases, which are attended from the beginning by most oppression of strength, and of the vital powers; he further remarks, that it will be found a most fatal delusion to be deterred from early bleeding and purging, by the semblance of debility, which only serves as a covering to obscure the destructive progress of the abdominal inflammation.

The value of bloodletting is inestimable, in cases, where the inflammation of any impor-

to show a disposition to receive information
and thereby to be the person who would give
a state of affairs in case he should be
appointed to the post of the land of
the country is not sufficient but in the
case the land is not to be taken as that of
the land is not to be taken as that of
the system must be improved by improving
the system by the system of the system
information is given in the case of the
information from the system of the system
of the system and of the system of the system
which it will be found a most little
to be taken from the system of the system
by the system of the system of the system
the system is a system of the system of the system
the system of the system of the system of the system
the system of the system of the system of the system
the system of the system of the system of the system

tent organ has actually begun, or, where the general
 excitement is so great, as to threaten such an occur-
 rence and the necessity of proportioning bloodletting
 in every instance, to the actual effect which it
 is observed to produce upon patient and the
 disease, and, not by any arbitrary measure of
 ounces, if we wish to obtain the full effect
 of the remedy, must be very obvious to every mind.
 Immediately after bleeding, active purging has
 been resorted to as the most effectual auxiliary
 in the cure of puerperal fever: to effect ~~this~~
 this indication; Dr. Armstrong, Mr. Gregson, and
 a number of other practitioners, were in the
 habit of administering large doses of calomet, to
 the amount of twenty or thirty grains, succeeded
 by sulphate of magnesia, castor oil, or infusions
 of senna; so as to induce copious purging, which
 was continued for two or three days, or untill
 the force of the disease was broken.

Dr. Gordon says, that not only purgatives are useful in the disease, but likewise bloodletting, and if he saw the patient in twelve or twenty-four hours after the attack, he took away from sixteen to twenty-four ounces of blood. He then immediately gave a cathartic consisting of calomel and jalap, after the operation of which, he administered an opiate at night, which he continued together with the purgative for several days.

Notwithstanding some practitioners have treated the disease by bleeding and purging conjointly, others have relied exclusively on purging, among these are Dr. Clarke, and Mr. Wolf, the latter says, he relies principally upon the daily exhibition of purgative medicines, and under this mode of treatment his practice has been generally successful. Perhaps this practice might answer in some parts of Europe, but in the United States where almost every disease appears to be more

Emetis ?

violent and rapid in its progress, it would not be likely to succeed.

Dr. Denman and some other writers, have borne testimony to the good effects of emetics in puerperal fever. They seem to produce their good effect, by relieving the stomach of its nauseating contents, and, likewise, by reducing the morbid force of the arterial system. Yet some practitioners are opposed to their repetition, and others denounce them altogether, saying, that the operation of vomiting never fails to aggravate the pain, and exhaust the woman. Besides increasing the irritability of the stomach, to which there is naturally too great a tendency. Ipecacuanha has been recommended in small doses frequently repeated, so as to determine to the surface: perhaps its efficacy may be increased by combining it with opium, as in the *pulvis ipecacuanha compositus*.

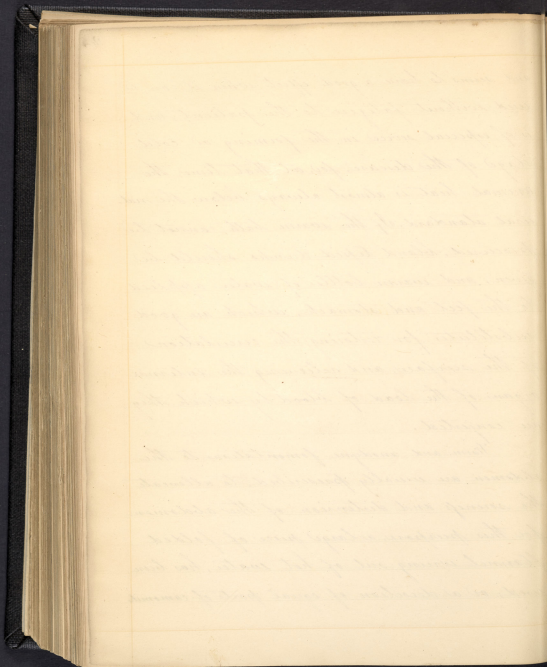
After considering the different modes of treating puerperal fever, and the comparative success of each, I am inclined to think the most rational mode of treating the disease is, in abstracting blood from a large orifice until a decided effect is produced, at the first onset of the disease, and, then, freely to evacuate the alimentary canal, which should be continued by gentle purging, throughout the course of the disease.

After sufficient evacuations by bleeding and purging, anodynes may be used with advantage; the dose of opium should be proportioned to the severity of the pain, and repeated at short intervals, so as to keep up a constant effect; administered in this manner, it allays the irritability of the system, as well as the stomach and intestines; it also relieves pain, produces sleep, and excites moderate perspirations.

The warm bath has been recommended.

and seems to have a good effect when it can be used without fatigue to the patient, and is of especial service in the forming or cold stage of the disease, for, at that time, the animal heat is almost always below the natural standard. If the warm bath cannot be procured, bland tepid drinks should be given, and warm bottles of water applied to the feet and stomach, which are good substitutes for restoring the circulation of the surface, and relieving the internal organs of the load of blood by which they are congested.

Warm and anodyne fomentations to the abdomen are usually prescribed, to alleviate the soreness and distension of the abdomen. For this purpose, a large piece of folded flannel wrung out of hot water, has been used, or a decoction of equal parts of camomile



flowers and bruised poppy-heads, applied over the whole abdomen, which should be removed as often as they become cold.

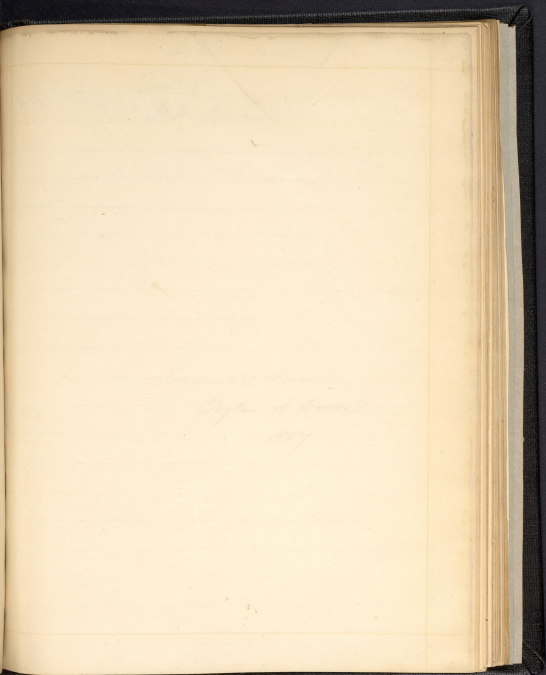
In the commencement of puerperal fever, after evacuations by bleeding, blisters have often a good effect; but in the advanced stage, the irritation which they produce, have been found injurious.

The oil of turpentine, first recommended by Dr. Brannan of Dublin, has been highly spoken of by Dr. Joseph Clark, and a few other practitioners in the advanced stage of the disease; but, so far as I know, the remedy has not been much used, and further experience with it, is necessary to establish the high character ascribed to it.

After this fever has continued for one or two days, it often assumes a malignant and putrid tendency. Under these circumstances

the peruvian bark, together with the mineral acids, particularly the muriatic, have been recommended; exhibited in as large doses as the stomach will bear. But it appears from the evidence on the subject, that, the cinchona, when given when the remissions have been tolerably distinct, has not answered the intention as a febrifuge; nor has it been found to answer as a supporter of the general strength, on account of the inevitable state of the stomach and intestines, which it has a tendency to increase.

The present book is the first of a series
and contains the history of the
movement which has been going on
in the world since the year 1789
the year in which the French Revolution
broke out. It is a history of the
ideas which have been in the
minds of men since that time
and of the events which have
followed from them. It is a history
of the human mind and of the
human race.



Det. James.